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Entropy and Fragility in Supercooling Liquids. Angell, C. A., **102**(*2*), 171 (1997).

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Entropy Theory and Glass Transition: A Test by Monte Carlo Simulation. Baschnagel, J., Wolfgardt, M., Paul, W., Binder, K., **102**(*2*),159 (1997).

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Radiometric Measurement Comparison Using the Ocean Color Temperature Scanner (OCTS) Visible and Near Infrared Integrating Sphere. Johnson, B. C., Sakuma, F., Butler, J. J., Biggar, S. F., Cooper, J. W., Ishida, J., Suzuki, K., **102**(*6*), 627 (1997).

Binder, K.

Entropy Theory and Glass Transition: A Test by Monte Carlo Simulation. Baschnagel, J., Wolfgardt, M., Paul, W., Binder, K., **102**(*2*),159 (1997).

Bitko, D.

Evidence for Glass and Spin-Glass Phase Transitions From the Dynamic Susceptibility. Bitko, D., Coppersmith, S. N., Leheny, R. L., Menon, N., Nagel, S. R., Rosenbaum, T. F., **102**(*2*), 207 (1997).

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Radiometric Measurement Comparison Using the Ocean Color Temperature Scanner (OCTS) Visible and Near Infrared Integrating Sphere. Johnson, B. C., Sakuma, F., Butler, J. J., Biggar, S. F., Cooper, J. W., Ishida, J., Suzuki, K., **102**(*6*), 627 (1997).

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Results of the NIST National Ball Plate Round Robin. Caskey, G. W., Phillips, S. D., Borchardt, B. R., **102**(*1*), 85 (1997).

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Chuang, T.-J.

Optimum Design of a Ceramic Tensile Creep Specimen Using a Finite Element Method. Wang, Z., Chiang, C. K., Chuang, T.-J., **102**(*1*),15 (1997).

Collé, R.

Standardization of ^{63}Ni by 4πβ Liquid Scintillation Spectrometry With ^{3}H-Standard Efficiency Tracing. Zimmerman, B. E., Collé, R., **102**(4), 455 (1997).

A Compendium on the NIST Radionuclidic Assays of the Massic Activity of ^{63}Ni and ^{55}Fe Solutions Used for an International Intercomparison of Liquid Scintillation Spectrometry Techniques. Collé, R., Zimmerman, B. E., **102**(*5*), 523 (1997).

Cooper, J. W.

Radiometric Measurement Comparison Using the Ocean Color Temperature Scanner (OCTS) Visible and Near Infrared Integrating Sphere. Johnson, B. C., Sakuma, F., Butler, J. J., Biggar, S. F., Cooper, J. W., Ishida, J., Suzuki, K., **102**(*6*), 627 (1997).

Coppersmith, S. N.

Evidence for Glass and Spin-Glass Phase Transitions From the Dynamic Susceptibility. Bitko, D., Coppersmith, S. N., Leheny, R. L., Menon, N., Nagel, S. R., Rosenbaum, T. F., **102**(*2*), 207 (1997).

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The 1994 North American Interagency Intercomparison of Ultraviolet Monitoring Spectroradiometers. Thompson, A., Early, E. A., DeLuisi, J., Disterhoft, P., Wardle, D., Kerr, J., Rives, J., Sun, Y., Lucas, T., Mestechkina, T., Neale, P., **102**(*3*), 279 (1997).

Di Marzio, E. A.

Configurational Entropy Approach to the Kinetics of Glasses. Di Marzio, E. A., Yang, A. J. M., **102**(*2*), 135 (1997).

Disterhoft, P.

The 1994 North American Interagency Intercomparison of Ultraviolet Monitoring Spectroradiometers. Thompson, A., Early, E. A., DeLuisi, J., Disterhoft, P., Wardle, D., Kerr, J., Rives, J., Sun, Y., Lucas, T., Mestechkina, T., Neale, P., **102**(*3*), 279 (1997).

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The 1994 North American Interagency Intercomparison of Ultraviolet Monitoring Spectroradiometers. Thompson, A., Early, E. A., DeLuisi, J., Disterhoft, P., Wardle, D., Kerr, J., Rives, J., Sun, Y., Lucas, T., Mestechkina, T., Neale, P., **102**(*3*), 279 (1997).

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Guidelines for Expressing the Uncertainty of Measurement Results Containing Uncorrected Bias. Phillips, S. D., Eberhardt, K. R., Parry, B., **102**(*5*), 577 (1997).

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Accurate Measurements of the Zero-Dispersion Wavelength in Optical Fibers. Mechels, S. E., Schlager, J. B., Franzen, D. L., **102**(*3*), 333 (1997).

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Workshop on Advanced Methods and Models for Appearance of Coatings and Coated Objects. McKnight, M. E., Martin, J. W., Galler, M., Hunt, F. Y., Lipman, R. R., Vorburger, T. V., Thompson, A., **102**(*4*), 489 (1997).

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Calibration of High Heat Flux Sensors at NIST. Murthy, A. V., Tsai, B. K., Gibson, C. E., **102**(*4*), 479 (1997).

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Interlaboratory Comparison on High-Temperature Superconductor Critical-Current Measurements. Wiejaczka, J. A., Goodrich, L. F., **102**(*1*), 29 (1997).

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On-Demand Generation of a Formaldehyde-in-Air Standard. Chu, P. M., Thorn, W. J., Sams, R. L., Guenther, F. R., **102**(*5*), 559 (1997).

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A Complete Multimode Equivalent-Circuit Theory for Electrical Design. Williams, D. F., Hayden, L. A., Marks, R. B., **102**(*4*), 405 (1997).

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1997 Wireless Communications Conference. Marks, R. B., Heutmaker, M. S., **102**(*6*), 697 (1997).

Hodge, I. M.

Adam-Gibbs Formulation of Enthalpy Relaxation Near the Glass Transition. Hodge, I. M., **102**(*2*), 195 (1997).

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DNA Molecules as Standard Reference Materials I: Development of DNA Identification Sequences and Human Mitochondrial DNA Reference Sequences. McKenney, K., Hoskins, J., Tian, J., Reddy, P., **102**(*1*), 53 (1997).

Hunt, F. Y.

Workshop on Advanced Methods and Models for Appearance of Coatings and Coated Objects. McKnight, M. E., Martin, J. W., Galler, M., Hunt, F. Y., Lipman, R. R., Vorburger, T. V., Thompson, A., **102**(*4*), 489 (1997).

Hutchinson, J. M.

Radionuclide Metrology and Its Applications—ICRM'97. Hutchinson, J. M., Unterweger, M., **102**(*5*), 589 (1997).

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Radiometric Measurement Comparison Using the Ocean Color Temperature Scanner (OCTS) Visible and Near Infrared Integrating Sphere. Johnson, B. C., Sakuma, F., Butler, J. J., Biggar, S. F., Cooper, J. W., Ishida, J., Suzuki, K., **102**(*6*), 627 (1997).

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The 1994 North American Interagency Intercomparison of Ultraviolet Monitoring Spectroradiometers. Thompson, A., Early, E. A., DeLuisi, J., Disterhoft, P., Wardle, D., Kerr, J., Rives, J., Sun, Y., Lucas, T., Mestechkina, T., Neale, P., **102**(*3*), 279 (1997).

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Electron-Impact Total Ionization Cross Sections of CH and C_2H_2. Kim, Y.-K., Ali, M. A., Rudd, M. E., **102**(*6*), 693 (1997).

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Water Calorimetry: The Heat Defect. Klassen, N. V., Ross, C. K., **102**(*1*), 63 (1997).

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Evidence for Glass and Spin-Glass Phase Transitions From the Dynamic Susceptibility. Bitko, D., Coppersmith, S. N., Leheny, R. L., Menon, N., Nagel, S. R., Rosenbaum, T. F., **102**(*2*), 207 (1997).

Lipe, T. E.

Extension of the NIST AC-DC Difference Calibration Service for Current to 100 kHz. Kinard, J. R., Lipe, T. E., Childers, C. B., **102**(*1*), 75 (1997).

Lipman, R. R.

Workshop on Advanced Methods and Models for Appearance of Coatings and Coated Objects. McKnight, M. E., Martin, J. W., Galler, M., Hunt, F. Y., Lipman, R. R., Vorburger, T. V., Thompson, A., **102**(*4*), 489 (1997).

Lucas, T.

The 1994 North American Interagency Intercomparison of Ultraviolet Monitoring Spectroradiometers. Thompson, A., Early, E. A., DeLuisi, J., Disterhoft, P., Wardle, D., Kerr, J., Rives, J., Sun, Y., Lucas, T., Mestechkina, T., Neale, P., **102**(*3*), 279 (1997).

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A Complete Multimode Equivalent-Circuit Theory for Electrical Design. Williams, D. F., Hayden, L. A., Marks, R. B., **102**(*4*), 405 (1997).

1997 Wireless Communications Conference. Marks, R. B., Heutmaker, M. S., **102**(*6*), 697 (1997).

The Automatic Radio Frequency Techniques Group Conference on Characterization of Broadband Telecommunications Components and Systems. Marks, R. B., Alley, G. D., **102**(*6*), 703 (1997).

Martin, J. W.

Workshop on Advanced Methods and Models for Appearance of Coatings and Coated Objects. McKnight, M. E., Martin, J. W., Galler, M., Hunt, F. Y., Lipman, R. R., Vorburger, T. V., Thompson, A., **102**(*4*), 489 (1997).

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Entropy, Free Volume, and Cooperative Relaxation. Matsuoka, S., **102**(*2*), 213 (1997).

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DNA Molecules as Standard Reference Materials I: Development of DNA Identification Sequences and Human Mitochondrial DNA Reference Sequences. McKenney, K., Hoskins, J., Tian, J., Reddy, P., **102**(*1*), 53 (1997).

McKnight, M. E.

Workshop on Advanced Methods and Models for Appearance of Coatings and Coated Objects. McKnight, M. E., Martin, J. W., Galler, M., Hunt, F. Y., Lipman, R. R., Vorburger, T. V., Thompson, A., **102**(*4*), 489 (1997).

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Accurate Measurements of the Zero-Dispersion Wavelength in Optical Fibers. Mechels, S. E., Schlager, J. B., Franzen, D. L., **102**(*3*), 333 (1997).

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Evidence for Glass and Spin-Glass Phase Transitions From the Dynamic Susceptibility. Bitko, D., Coppersmith, S. N., Leheny, R. L., Menon, N., Nagel, S. R., Rosenbaum, T. F., **102**(*2*), 207 (1997).

Mestechkina, T.

The 1994 North American Interagency Intercomparison of Ultraviolet Monitoring Spectroradiometers. Thompson, A., Early, E. A., DeLuisi, J., Disterhoft, P., Wardle, D., Kerr, J., Rives, J., Sun, Y., Lucas, T., Mestechkina, T., Neale, P., **102**(*3*), 279 (1997).

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First Annual Leveraging Cyberspace Conference. Moline, J. A., **102**(*3*), 371 (1997).

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Calibration of High Heat Flux Sensors at NIST. Murthy, A. V., Tsai, B. K., Gibson, C. E., **102**(*4*), 479 (1997).

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The 1994 North American Interagency Intercomparison of Ultraviolet Monitoring Spectroradiometers. Thompson, A., Early, E. A., DeLuisi, J., Disterhoft, P., Wardle, D., Kerr, J., Rives, J., Sun, Y., Lucas, T., Mestechkina, T., Neale, P., **102**(*3*), 279 (1997).

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Entropy Theory and Glass Transition: A Test by Monte Carlo Simulation. Baschnagel, J., Wolfgardt, M., Paul, W., Binder, K., **102**(*2*),159 (1997).

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Guidelines for Expressing the Uncertainty of Measurement Results Containing Uncorrected Bias. Phillips, S. D., Eberhardt, K. R., Parry, B., **102**(*5*), 577 (1997).

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DNA Molecules as Standard Reference Materials I: Development of DNA Identification Sequences and Human Mitochondrial DNA Reference Sequences. McKenney, K., Hoskins, J., Tian, J., Reddy, P., **102**(*1*), 53 (1997).

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The 1994 North American Interagency Intercomparison of Ultraviolet Monitoring Spectroradiometers. Thompson, A., Early, E. A., DeLuisi, J., Disterhoft, P., Wardle, D., Kerr, J., Rives, J., Sun, Y., Lucas, T., Mestechkina, T., Neale, P., **102**(*3*), 279 (1997).

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Uncertainty and Dimensional Calibrations. Doiron, T., Stoup, J., **102**(*6*), 647 (1997).

Sun, Y.

The 1994 North American Interagency Intercomparison of Ultraviolet Monitoring Spectroradiometers. Thompson, A., Early, E. A., DeLuisi, J., Disterhoft, P., Wardle, D., Kerr, J., Rives, J., Sun, Y., Lucas, T., Mestechkina, T., Neale, P., **102**(*3*), 279 (1997).

Suzuki, K.

Radiometric Measurement Comparison Using the Ocean Color Temperature Scanner (OCTS) Visible and Near Infrared Integrating Sphere. Johnson, B. C., Sakuma, F., Butler, J. J., Biggar, S. F., Cooper, J. W., Ishida, J., Suzuki, K., **102**(*6*), 627 (1997).

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The 1994 North American Interagency Intercomparison of Ultraviolet Monitoring Spectroradiometers. Thompson, A., Early, E. A., DeLuisi, J., Disterhoft, P., Wardle, D., Kerr, J., Rives, J., Sun, Y., Lucas, T., Mestechkina, T., Neale, P., **102**(*3*), 279 (1997).

Workshop on Advanced Methods and Models for Appearance of Coatings and Coated Objects. McKnight, M. E., Martin, J. W., Galler, M., Hunt, F. Y., Lipman, R. R., Vorburger, T. V., Thompson, A., **102**(*4*), 489 (1997).

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On-Demand Generation of a Formaldehyde-in-Air Standard. Chu, P. M., Thorn, W. J., Sams, R. L., Guenther, F. R., **102**(*5*), 559 (1997).

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DNA Molecules as Standard Reference Materials I: Development of DNA Identification Sequences and Human Mitochondrial DNA Reference Sequences. McKenney, K., Hoskins, J., Tian, J., Reddy, P., **102**(*1*), 53 (1997).

Tsai, B. K.

Calibration of High Heat Flux Sensors at NIST. Murthy, A. V., Tsai, B. K., Gibson, C. E., **102**(*4*), 479 (1997).

Developments for a New Spectral Irradiance Scale at the National Institute of Standards and Technology. Tsai, B. K., **102**(*5*), 551 (1997).

U

Unterweger, M.

Radionuclide Metrology and Its Applications—ICRM'97. Hutchinson, J. M., Unterweger, M., **102**(*5*), 589 (1997).

V

van Heerden, D.

Energy-Filtered High-Resolution Electron Microscopy for Quantitative Solid State Structure Determination. Wang, Z. L., van Heerden, D., Josell,D., Shapiro, A. J., **102**(*1*), 1 (1997).

Villarrubia, J. S.

Algorithm for Scanned Probe Microscope Image Simulation, Surface Reconstruction, and Tip Estimation. Villarrubia, J. S., **102**(*4*), 425 (1997).

Vorburger, T. V.

Workshop on Advanced Methods and Models for Appearance of Coatings and Coated Objects. McKnight, M. E., Martin, J. W., Galler, M., Hunt, F. Y., Lipman, R. R., Vorburger, T. V., Thompson, A., **102**(*4*), 489 (1997).

W

Wang, Y.

New Method for Measuring Statistical Distributions of Partial Discharge Pulses. Wang, Y., **102**(*5*), 569 (1997).

Wang, Z.

Optimum Design of a Ceramic Tensile Creep Specimen Using a Finite Element Method. Wang, Z., Chiang, C. K., Chuang, T.-J., **102**(*1*),15 (1997).

Wang, Z. L.

Energy-Filtered High-Resolution Electron Microscopy for Quantitative Solid State Structure Determination. Wang, Z. L., van Heerden, D., Josell,D., Shapiro, A. J., **102**(*1*), 1 (1997).

Wardle, D.

The 1994 North American Interagency Intercomparison of Ultraviolet Monitoring Spectroradiometers. Thompson, A., Early, E. A., DeLuisi, J., Disterhoft, P., Wardle, D., Kerr, J., Rives, J., Sun, Y., Lucas, T., Mestechkina, T., Neale, P., **102**(*3*), 279 (1997).

Weetall, H. H.

The Sixth International Meeting on Chemical Sensors. Weetall, H. H., **102**(*1*), 95 (1997).

Wiejaczka, J. A.

Interlaboratory Comparison on High-Temperature Superconductor Critical-Current Measurements. L. F., Wiejaczka, J. A., Goodrich, **102**(*1*), 29 (1997).

Williams, D. F.

A Complete Multimode Equivalent-Circuit Theory for Electrical Design. Williams, D. F., Hayden, L. A., Marks, R. B., **102**(*4*), 405 (1997).

Wolfgardt, M.

Entropy Theory and Glass Transition: A Test by Monte Carlo Simulation. Baschnagel, J., Wolfgardt, M., Paul, W., Binder, K., **102**(*2*),159 (1997).

Wolynes, P. G.

Entropy Crises in Glasses and Random Heteropolymers. Wolynes, P. G., **102**(*2*), 187 (1997).

Y

Yang, A. J. M.

Configurational Entropy Approach to the Kinetics of Glasses. Di Marzio, E. A., Yang, A. J. M., **102**(*2*), 135 (1997).

Yaniv, S. L.

Creep and Creep Recovery Response of Load Cells Tested According to U.S. and International Evaluation Procedures. Bartel, T. W., Yaniv, S. L., **102**(*3*), 349 (1997).

Z

Zimmerman, B. E.

Standardization of ^{63}Ni by $4\pi\beta$ Liquid Scintillation Spectrometry With ^{3}H-Standard Efficiency Tracing. Zimmerman, B. E., Collé, R., **102**(*4*),455 (1997).

A Compendium on the NIST Radionuclidic Assays of the Massic Activity of ^{63}Ni and ^{55}Fe Solutions Used for an International Intercomparison of Liquid Scintillation Spectrometry Techniques. Collé, R., Zimmerman, B. E., **102**(*5*), 523 (1997).